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Please find below and/or attached an Office communication concerning this application or proceeding.

Application No.

09/204,523

Applicant(s)

Fransman, et al

Office Action Summary

Examiner

Reuben Brown

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The MAILING DATE of this communication appe	ars on the cover sheet with the correspondence address
Period for Reply	
A SHORTENED STATUTORY PERIOD FOR REPLY IS S	SET TO EXPIRE3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136 (a)	. In no event, however, may a reply be timely filed after SIX (6) MONTHS from the
mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply with	on the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will ap	pty and will expire SIX (6) MONTHS from the mailing date of this communication.
 Failure to reply within the set or extended period for reply will, by statute, cau Any reply received by the Office later than three months after the mailing date 	
earned patent term adjustment. See 37 CFR 1.704(b).	
Status 1) Responsive to communication(s) filed on Jul 8,	2002 .
2a) ☑ This action is FINAL . 2b) ☐ This	action is non-final.
3) Since this application is in condition for allowand closed in accordance with the practice under Ex	ce except for formal matters, prosecution as to the merits is parte Quayle, 1935 C.D. 11; 453 O.G. 213.
Disposition of Claims	
4) 💢 Claim(s) <u>1-8, 17-25, and 27</u>	is/are pending in the application.
4a) Of the above, claim(s)	is/are withdrawn from consideration.
5) Claim(s)	is/are allowed.
6) 💢 Claim(s) <u>1-8, 17-25, and 27</u>	is/are rejected.
7)	is/are objected to.
8) Claims	are subject to restriction and/or election requirement.
Application Papers	
9) The specification is objected to by the Examiner	
10) ☐ The drawing(s) filed on is/	are a) \square accepted or b) \square objected to by the Examiner.
Applicant may not request that any objection to the	ne drawing(s) be held in abeyance. See 37 CFR 1.85(a).
11) The proposed drawing correction filed on	is: a) \square approved b) \square disapproved by the Examiner.
If approved, corrected drawings are required in rep	
12) The oath or declaration is objected to by the Ex	aminer.
Priority under 35 U.S.C. §§ 119 and 120	
13) \square Acknowledgement is made of a claim for foreign	n priority under 35 U.S.C. § 119(a)-(d) or (f).
a) □ All b) □ Some* c) □ None of:	
1. Certified copies of the priority documents	have been received.
2. Certified copies of the priority documents	have been received in Application No
application from the International B	
*See the attached detailed Office action for a list of	
14) Acknowledgement is made of a claim for domes	
a) L The translation of the foreign language provisi	
15) 🗶 Acknowledgement is made of a claim for domes	stic priority under 35 U.S.C. 33 120 and/or 121.
Attachment(s) 1) Notice of References Cited (PTO-892)	4) Interview Summary (PTO-413) Paper No(s).
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) Notice of Informal Petent Application (PTO-152)
Information Disclosure Statement(s) (PTO-1449) Paper No(s)	6) Other:
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DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 7/8/2002 have been fully considered and pursuant to the Request for Reconsideration, the finality of the Office Action mailed 5/7/02 has been withdrawn. A new final Office Action is enclosed. Applicant's arguments with respect to the merits of the Office Action are not persuasive.

Beginning on page 4, applicant asserts that the combination of Clark, Nouri & Ritchie do not meet the claimed, 'test channel dedicated solely to testing a selected asset'. Examiner respectfully disagrees. First of all, it is reiterated that Clark is directed to a system, including a video server 11 that manages the transmission/distribution of movies at staggered times to a plurality of subscribers, see col. 5, lines 1-25. It is stated that this a nearly video-on-demand system, col. 5, lines 23-24.

Video server 11 includes a plurality of video players 17, that are the actual transmitters of the movies to the plurality of viewers. Examiner states the self-evident fact that the video players 17, i.e. video assets cannot operate forever, i.e., from time to time they will fail and become inoperable. In order to overcome this known fact governing electro-mechanical equipment, Clark

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discloses that serving computer 15 monitors the status of video players 17. Applicant is directed to col. 4, lines 38-46. It is disclosed that an operator display screen provides video player status of the video player 17, indicating the mode that each video player is currently operating or whether a video player 17 has failed. However, even though the computerized management system of Clark enables an administrator to view on a display screen whether a selected asset is operating or has failed, it does not explicitly state that the computerized system utilizes a graphical user interface for verifying the status of the selected asset.

Examiner has relied upon the Nouri reference, which is also directed to a distribution system that overcomes the known problem of the lack of reliability of servers, see col. 2, lines 11-15. Nouri presents a solution to the problem found by administrators attempting to learn the status of servers, in the old art, without a GUI system. It is discussed that these administrators' are in need of a graphical user interface for monitoring the health of the networks, i.e. server assets, by using the more convenient point-and-click technology, col. 2, lines 61-67. Therefore examiner asserts that Nouri provides a clear motivation for a desirable improvement of Clark, by discussing the benefits of a GUI system and applicant's arguments to the contrary are not sustainable. Clearly it would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Clark with the very well known technique of a GUI, for the advantages of more easily viewing and manipulating data concerning the status of selected server assets, as taught by Nouri.

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With respect to the specific limitation of "a test channel dedicated solely for testing a selected asset", the combination of Clark & Nouri do not teach such a feature. However, even though applicant admits on page 5 that Ritchie discloses that test links 806 & 810 are used for testing an upstream and downstream transmitter through the use of RF test signal, it is still argued that the combination does not meet the claimed limitation. Again, examiner respectfully disagrees and points to col. 26, lines 1-20 & col. 27, lines 12-25, which states that each DTM 804 is connected to the TCM 800, via test line 810. The downstream transmitter module, DTM 804 corresponds with the transmission (server) assets disclosed in both Clark & Nouri. Thus test line 810 reads on the claimed channel dedicated solely to the testing of a selected asset and meets the claimed subject matter.

As for the motivation for modifying the combination of Clark & Nouri, with the teachings of Ritchie, the need for bandwidth allocation is noted, col. 5, line 1-3. Moreover, as discussed at col. 6, lines 21-32, one of ordinary skill in the art at the time the invention was made, would have readily recognized the benefit of dedicated test channels, at least for the advantage of overcoming problems known to be associated with re-allocating bandwidth. Thus one of ordinary skill in the art would have recognized the notoriously well known technique or reserving or allocating a channel for a specific purpose, as taught by Ritchie, at least for the desirable improvement of ensuring the communication of specified data, since its bandwidth or channel is already allocated.

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Examiner asserts that at the time the invention was made, single purpose or dedicated channels was not a patentably distinct feature.

Applicant argues on page 4, that the combination of Clark, Nouri & Ritchie, "do not disclose a test channel dedicate solely to testing a selected asset." Examiner respectfully disagrees. Examiner points out that the Ritchie reference is relied upon to teach the claimed feature of, "a test channel dedicated to testing a selected asset." Applicant more specifically argues that Ritchie does "not disclose or suggest the recited [solely dedicated] test channel.

On page 4, applicant goes on to cite col. 25, line 62 thru col. 26, line 16 of Ritchie, and draws the conclusion on page 5, that the "test links 806 and 810 do not test a selected asset". Examiner respectfully disagrees, since Ritchie unambiguously teaches that the test links 806 and 810 are only used for testing the URM 802 and DTM 804, respectfully. Examiner does not understand applicant's position that the test links are not solely dedicated to testing assets, since that is how they are defined by Ritchie, see col. 26, lines 40-50 & col. 27, lines 12-25. It is clear from the above passages of Ritchie and Fig. 13, that each DTM 804 outputs two signals, one being the main RF output 818, i.e. video signals and the other being the test RF output 820. The test RF output 820 for each DTM

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804 is collected at the test combiner 808 and transmitted to the TCM 800 via test link 806.

Without question then, each DTM 804 sends a test signal on a channel 820, which is solely dedicated to the transmission of test signals from the particular DTM 804, and transmits that test signal on another channel 806, which is solely dedicated to the transmission of the test signals from the plurality of DTM's connected via the combiner 808, to the Test Control Module, TCM 800.

It appears that applicant is making the point that even though the DTM 804 is connected to the TCM 800 through test links 820 and 806, which are solely dedicated to transmitting test signals, that the DTM itself is not "a selected asset *that includes video content* for staggered transmission to subscribers of a NVOD system", emphasis added. However, examiner points out that the combination of Clark (col. 4, lines 30-45; col. 5, lines 10-24) & Nouri (col. 3, lines 45-65; col. 6, lines 51-67) is relied upon to teach testing "a selected asset that includes video content for staggered transmission to subscribers of a NVOD system" using a graphical user interface. Furthermore, each DTM 804 in Ritchie clearly is a selected asset, which includes video content, and transmits such content to users in the system, see col. 27, lines 14-16.

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On page 5, applicant asserts that even assuming that Ritchie discloses the recited test channel dedicated to solely testing an asset, that there would no motivation to combine the three references, absent impermissible hindsight. Examiner respectfully disagrees with applicant's position. Applicant essentially argues that Clark, Nouri and Ritchie are directed to *different fields of endeavor*, and thus one of ordinary skill in the art at the time the invention was made, would not have been motivated to combine the three references. Firstly, examiner points out that all three of the instant references are directed to an environment of transmitting video/visual data from a central location to a plurality of viewers. Secondly, each reference discusses some aspect of testing a selected device that transmits video/visual data to a plurality of clients, see Clark (col. 4, lines 30-45); Nouri (Abstract; col. 1, lines 55-67); and Ritchie (Abstract; col. 8, lines 29-35 & col. 27, lines 12-25).

As a third point with respect to the issue of motivation, examiner notes that both Nouri (col. 3, lines 45-55; col. 6, lines 54-62) and Ritchie (col. 28, lines 54-67 thru col. 28, lines 1-15) provide a solution for non-properly functioning server assets using various fault tolerant algorithms, such as for instance replacing the faulty asset with a functioning asset. Finally, again with respect to issue of motivation, examiner contends that one of ordinary skill in the art at the time the invention was made, would have been motivated to at least periodically test the status of video servers/assets that transmit video data to a

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plurality of clients for the desirable benefit of efficiently operating NVOD systems.

Therefore, it is clear that all three of the relied upon references are in related fields of endeavor, with at least one common theme being the reliable transmission of video/visual data to a plurality of clients.

Moreover, as discussed by examiner in the previous Office Action, one of ordinary skill in the art would have readily recognized the benefit of maintaining separate channels/links for the transmission of test RF signals and main RF signals, at least in order to conserve a certain portion of the bandwidth for distribution of the video to clients. Furthermore, using a single channel for testing enables to tested asset to be continuously tuned to a single frequency, avoiding the need to re-tune or re-scan and search for the test signal. In light of the above arguments, examiner maintains the rejection of record.

Applicant also argues, beginning on page 11, that Gardner does not disclose or suggest the claimed "head-end configuration manager, arranged to track configuration parameters of a head-end of the NVOD system, wherein the configuration parameters determine the NVOD channel allocations". Examiner respectfully disagrees. Again it is pointed out that the problem of tracking the configuration of servers in a video distribution network was very well known at the time of the present invention. Likewise, the

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technique of bandwidth or channel allocation was also notoriously well known in the art,

at the time the invention was made.

With respect to Gardner, the instant reference is clearly directed to improvements

in data storage and retrieval using bandwidth allocation, see col. 1, lines 8-18 & col. 1,

lines 38-67. Examiner furthermore directs applicant to col. 2, lines 15-34, which explicitly

discusses that Gardner employs principles of bandwidth, i.e. channel allocation in order to

ensure the delivery of requested movies to clients. At col. 5, lines 19-51, it is discussed

that the configuration parameters are used by the system in order to establish appropriate

channels, i.e., bandwidth allocation, to distribute movie files to clients.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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3. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, (U.S. Pat # 5,383,112), in view of Nouri, (U.S. Pat # 6,088,816) and Richie, (U.S. Pat # 5,790,523).

Considering amended claim 1, the claimed master scheduler arranged to control a near video on demand system comprising a schedule management system arranged to receive and validate a schedule reads on the operation of master scheduler 20, and serving computer 15, (col. 2, lines 55-67; col. 3, lines 1-11). Both master scheduler 20 and serving computer 15 may be implemented as personal computers and are enabled to receive & validate a NVOD programming schedule, (col. 4, lines 29-38; col. 8, lines 51-68).

Specifically, the claimed feature of receiving and validating a schedule is broad enough to read on an operator using the Schedule Manager Segment 700 in order to create a schedule, and wherein the instant schedule is validated by being accepted and put into operation by the computer, as taught by Clark (col. 13, lines 49-68; col. 15, lines 17-32).

Moreover the system in Clark 'validates' the schedule by checking it against certain required parameters and providing the operator with various messages when the instant created schedule is not in a valid form to be adopted, see col. 14, lines 10-24.

The claimed content manager system arranged to monitor and control the loading of assets into a video server according to the validated schedule, wherein the assets

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include video content scheduled for staggered transmission to subscribers of the NVOD system using a plurality of channels is met by Clark (col. 4, lines 25-40; col. 5, lines 17-23).

Regarding the amended claimed feature of the content manager including a GUI configured to allow an administrator to view a selected asset using a test channel dedicated for testing the selected asset, the master scheduler 20 of Clark provides a GUI for an operator to edit and modify a programming transmission schedule. Clark also teaches testing selected video assets which contain video content, but does not discuss implementing the procedure with a GUI. Nevertheless, Nouri discloses a means for an operator to view the status or condition of various assets at a server, (Abstract, lines 1-4; col. 3, lines 45-65; col. 6, lines 51-67). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Clark, with the disclosure of Nouri, providing operators with a visual/graphical display of the status of various components of the server, at least for the desirable improvement of enabling the operator to more readily and efficiently adjust parameters of the system.

Regarding the amended claimed feature wherein the test channel is solely dedicated for testing the selected asset, Clark & Nouri do not teach such a feature. Ritchie is directed to a testing facility for testing a plurality of different assets, i.e upstream receiver

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modules (URM) 802 and downstream transmitter modules (DTM) 804, at a CATV headend interface unit, see col. 25, lines 62-67 thru col. 26, lines 1-15 & col. 28, lines 52-60, and is therefore in the same field of endeavor as Clark & Nouri. In particular, Ritchie teaches that when testing the various modules, the test control module (TCM) 800, utilizes a particular RF test frequency, i.e channel which only used for testing, see col. 26, lines 40-55 & col. 27, lines 12-50. One of ordinary skill in the art would have readily recognized the benefit and it would have been obvious for one ordinary skill in the art at the time the invention was made to modify the combination of Clark & Nouri with the teachings of Ritchie, wherein a particular channel is solely used for testing an asset, at least for the known purpose of conserving a certain portion of the bandwidth for distribution of the video to clients.

Considering claim 2, Clark teaches that an operator utilizes the Schedule Manager software on one or more computers 15, 20, 64 or 66 in order to create monthly, weekly or daily schedules. The menu system utilized by the operator reads on the GUI based administrator recited in the instant claim.

Considering claim 3, Fig. 1 of Clark shows the Master Scheduler 20, as a separate entity from the video server 11. Also, Clark teaches that at least the weekly schedule may be edited and modified, see col. 13, lines 10-65.

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4. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Nouri & Ritchie, in view of Gardner, (U.S. Pat # 5,583,995).

Considering claims 4-7, Clark discusses an operator manually checking and updating the video storage/retrieval devices at a server, (col. 27, lines 1-25). Even though Clark does not specifically discuss bandwidth and channel optimization algorithms, at the time the invention was made such technology was well known in the art. In particular, Gardner provides a standard teaching of system which tracks configuration parameters of a headend and accordingly, makes dynamic adjustments and reallocations of servers assets, (col. 1, lines 58-65; col. 4, lines 14-58; col. 5, lines 21-40; col. 11, lines 61-68& col. 13, lines 42-55). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Clark, with a server reconfiguration algorithm, for the desirable benefit of a more efficient video delivery system, as taught by Gardner.

Regarding claim 5-6, the claimed feature of a tasks management system arranged to generate an indication of tasks to e performed in order to conduct loading of assets to the video server, and a notifications generator, which generates notifications of conditions associated with tasks are necessarily included in all of the references relied upon by

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examiner. All of the references disclose computerized video delivery systems. It is required that these computerized system include a list of tasks that must be performed in order to operate. Moreover, the computerized system necessarily include a manner of checking that the conditions associated with the tasks. This is especially true since the relied upon references are directed to fault detection systems, which continually monitor the conditions of the server assets. Moreover, examiner points to Clark, (Abstract, lines 1-13; Fig. 5 & Fig. 6), which discusses a list of tasks that may be performed in loading assets to the video server, for distribution to clients.

As for claim 7, Clark is clearly directed to monitoring status and conditions of assets in a NVOD system, col. 4, lines 38-46.

Considering claim 8, Nouri discusses a GUI in order to query the status of servers on the system, (col. 6, lines 51-67).

5. Claims 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark & Davis, in view of Ritchie.

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Considering claim 17, the claimed method for controlling a NVOD system which corresponds with subject matter mentioned above in the rejection of claim 10, are likewise rejected. As for the amended claimed recitation of loading assets into a video server via group of channels according to a finalized schedule, the claimed feature reads on the combination of Clark & Davis (col. 8, lines 1-15; col. 29, lines 35-41). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify Clark with technique of processing a program schedule to generate a finalized version, at least for the desirable purpose of detecting errors and providing the most accurate updated schedule to the clients, as taught by Davis.

However, Davis does not teach the amended claimed feature wherein at least one of the group of channels is a test channel, dedicated solely for the purpose of testing.

Nevertheless, Ritchie provides a teaching wherein a downstream transmitter module (DTM) 804, has two RF output channels, a main RF channel and test RF channel. This RF test channel is solely utilized for communication between the TCM 800, which reads on the amended claimed feature. It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify Clark with the teachings of Ritchie wherein a particular channel is solely used for testing an asset, at least for the known desirable of advantage of avoiding the mixing of data signals with test signals.

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Considering claim 18, Clark teaches maintaining an inventory of storage/retrieval device, (col. 16, line 49-68).

6. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Davis & Ritchie and further in view of Nouri.

Regarding claims 19-20, Clark discusses monitoring/testing the various assets, which contain video content, (col. 4, lines 29-45). Also, the master scheduler 20 of Clark provides a GUI for an operator to edit and modify a programming transmission schedule, (col. 13, lines 10-38) but does not specifically show a GUI in order to view the status of assets. Nevertheless, Nouri discloses a means for an operator to view the status or condition of various assets at a server. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Clark, Davis & Ritchie, with the disclosure of Nouri, providing operators with a visual/graphical display of the status of various components of the server, at least for the desirable improvement of enabling the operator to more readily and efficiently adjust parameters of the system.

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7. Claims 21-25 & 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark, Davis & Ritchie as applied to claim 17 above, and further in view of Gardner.

Considering amended claim 21, the method steps for validation of scheduling information which corresponds with subject matter mentioned above in the rejection of claim 17, are likewise rejected. The claimed step of receiving an asset from an asset provider is broad enough to read on one or more video storage/retrieval means being added to a video server, which is necessarily included in Clark. Even though Clark does not specifically discuss bandwidth and channel optimization algorithms, at the time the invention was made such technology was well known in the art. In particular, Gardner provides a standard teaching of system which tracks configuration parameters of a headend and accordingly, makes dynamic adjustments and reallocations of servers assets, (col. 1, lines 58-65; col. 4, lines 14-58; col. 11, lines 61-68; col. 13, lines 42-55). It would have been obvious for one of ordinary skill in the art at the time the invention was made to modify Clark, with a server reconfiguration algorithm, for the desirable benefit of a more efficient video delivery system, as taught by Gardner.

Regarding the amended claimed feature of modifying the schedule information at the master scheduler, and transmitting the modified schedule to a program guide system and to a business support system. As discussed in the rejection of claim 3, Clark teaches

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transmitting a schedule of programs derived in the Exhibition Schedule Manger 300, which may be embodied within a master scheduler 20, to computer 64 over a PSTN. It would have been obvious to transmit the schedule of programs to a billing support system, for the desirable purpose of accurately billing customers for services performed by the system of Clark. Such a feature does not represent a novel nor an unobvious technique, at the time the invention was made.

Regarding claim 22-23, Gardner extensively discusses the monitoring of asset and resource performance, with respect to established maximum expected performance of the instant assets, (col. 6, lines 41-55; col. 12, lines 49-55).

Considering claim 24, Official Notice is taken that at the time the invention was made, it was well known to limit the viewing or playing of video on demand services to subscribers based on several parameters, including the timeliness of the data. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Clark, Davis & Gardner, inhibiting the transmission/reception of video programming based on the timeliness of the instant video program, at least for the desirable advantage of a more efficient system which only offers programming to viewers which is currently available.

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Considering claim 25, the combination of Clark (col. 14, lines 1-25) & Davis (col. 29, lines 1-25) reads on the claimed feature of receiving a program guide information and comparing it to scheduling information.

Considering claim 27, Clark receives, maintains and updates billing/pricing information, (col. 4, lines 34-37; col. 8, lines 35-45).

Conclusion

8. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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305-4700.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314, (for formal communications; please mark

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Hand-delivered responses should be brought to Crystal Park II, 2121

Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Reuben Brown whose telephone number is (703) 305-2399. The examiner can normally be reached on M-Th from 8:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile, can be reached on (703) 305-4380.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703)

ANDREW FAILE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800